

Managing Data



GETTING THERE

Grades K-5

Skills and Objectives:

- Students will learn what a pictograph is and how it is used.
- Students will use whole-number addition to interpret a pictograph.
- Students will collect data and present it in their own pictograph.

Suggested Groupings:

Individuals, partners

Getting Started:

- Introduce the lesson by telling students that the Census Bureau counts the number of people in Guam, then tallies the information and displays it in charts and graphs. Show them the questions on page 29 to demonstrate the kind of information that is gathered.
- Explain that, in this lesson, students will practice reading a certain kind of graph, a pictograph. They will then gather information and create their own pictograph.
- Discuss with students the different ways they travel to visit family or friends. List these ways on the board and then take a survey by asking each student how he or she usually travels to visit friends (you will use the results in a later activity). Explain that a survey is when you ask the same question of many people and then add up their answers. Discuss that the census is also a type of survey and that it includes questions on transportation, such as how people get to work.

Using the Activity Worksheets:

- Photocopy and distribute Activity Worksheet 6A (page 21) to your class.
- Make sure the students understand the pictograph. Then have students work by themselves or with a partner to answer the questions. Discuss the results of this first activity. You may wish to write the results on the chalkboard.
- Photocopy and distribute Activity Worksheet 6B (page 22) to individual students or partners.
- Direct students to draw their pictograph in a way that is similar to the one shown on page 21.

Chalkboard Definition

pictograph: a graph that uses pictures to stand for a number of people or things. In the left column of the table on Activity Worksheet 6B, students will draw symbols to represent the three means of transportation that their classmates most commonly use to visit friends (based on the results of the classroom survey). Remind them that the fourth row should be labeled "other."

Wrapping Up:

How does a pictograph make it easy to compare numbers? (Instead of totaling numbers, you can just look to see which row has the most pictures.)

• Explain to students that the kinds of transportation that are practical and available can vary greatly depending on the village in which they live.

Extension Activities:

- Grades K-1: Use the data you have collected from the class survey to create a transportation chart on a bulletin board or poster board. Reinforce that charts make it easier to understand information about a number of different people or things.
- Grades 4-5: Invite students to gather other types of information through surveys of their friends or family and display them in pictographs. Suggestions include favorite animals, sports, or foods.

Answers:

Page 21

- 1. Two students in Ms. Guerrero's class.
- 2. Most students visit friends on foot.
- **3.** 23.

Page 22

Graphs will vary.

Name:

Getting There

When you visit friends, how do you usually get there? The pictograph below shows how the students in Ms. Guerrero's class usually travel to visit friends. In a pictograph, pictures stand for a certain number of things or people.

HOW MS. GUERRERO'S STUDENTS TRAVEL TO VISIT FRIENDS							
On Foot	\odot	\odot	\odot		\odot	(
By Car	\odot	\odot	<u></u>	\odot			
By Bus	\odot	\odot					

PICTOGRAPH KEY



= 2 students in Ms. Guerrero's class

Use the pictograph to answer the following questions.

- 1. What does a ② stand for on the pictograph?
- 2. How do most of Ms. Guerrero's students travel to visit their friends?
- 3. How many students are there in Ms. Guerrero's class?



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Getting There (continued)

How do you and your classmates travel to see your friends? Your teacher will help you find out. Then use that information to create your own pictograph below.

Create your pictograph below. First, label the left column with pictures of the different kinds of transportation. The fourth row should be labeled "OTHER." Next, draw a picture to represent two students from your class. Put it in the key. Then fill in each row by drawing in the correct number of pictures.

HOW MY CLASSMATES TRAVEL TO VISIT FRIENDS				

PICTOGRAPH KEY